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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,233	09/25/2003	Vibhor Julka	4740-223	8712
24112 7590 07/07/2009 COATS & BENNETT, PLLC 1400 Crescent Green, Suite 300 Cary, NC 27518				
EXAMINER				
CASCA, FRED A				
ART UNIT		PAPER NUMBER		
2617				
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07/07/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/672,233

Applicant(s)

JULKA ET AL.

Examiner

FRED A. CASCA

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13, 16-23, 25-40 and 43 is/are rejected.
- 7) ☒ Claim(s) 7, 14, 15, 24, 41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the Appeal Brief filed on 04 February 2009 PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sayeedi (U.S. Pub. No. 2003/0063584 A1) in view of Wang et al (US 6,909,899 B2).

Referring to claim 17, Sayeedi discloses a method of managing dormant handoffs of mobile stations at a wireless communication network Packet Control Function (figures 1-3, abstract, paragraph 2 “dormant mode, packet data mobile handoffs”), the method comprising: recognizing that a mobile station undergoing dormant handoff (paragraph 2); and sending an indication of service instance to a Base Station supporting the dormant handoff of the mobile station (figures 1-3, paragraphs 2, 5 and paragraph 16, “mobile station (MS) requests a dormant mode handoff to a new base site controller”).

Sayeedi does not specifically disclose that recognizing of the dormant handoff is for multiple packet data service instances and sending of the indication is for the multiple packet data service instances, in the format claimed.

However, a mobile station having multiple packet data service instances and handing off the multiple packet data service instances is conventional in CDMA2000 communications, as disclosed by Wang.

Wang discloses a Mobile station handing off multiple packet data service instances (Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25).

It would have been obvious to a person of skill in the art at the time of invention to modify the invention of Sayeedi in the format claimed by incorporating the teachings of Wang, for the purpose of providing an efficient communication system.

4. Claims 1-2, 5, 8, 11, 13, 16 and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayeedi (U.S. Pub. No. 2003/0063584 A1) in view of Wang et al (US 6,909,999 B2) and further in view of Lancelot et al (US Patent No. 6026086).

Referring to claim 1, Sayeedi discloses a method of managing dormant handoffs of mobile stations at a wireless communication network Base Station (BS) (abstract, paragraph 2 “dormant mode, packet data mobile handoffs”, and Fig. 1-3), the method comprising:

initiating dormant handoff of a mobile station that is undergoing a packet data mobility event responsive to receiving a first dormant handoff request from the mobile station for a first packet data service instance of the mobile station (paragraph 2); and

recognizing that a mobile station undergoing dormant handoff has a packet data service instance (paragraphs 2 and 5, figures 1-3, and paragraph 16, “mobile station (MS) requests a dormant mode handoff to a new base site controller”) and

selectively assigning a traffic channel to the mobile station to assist the mobile station in the handoff process (paragraphs 2-9, particularly Par. 2 and 3, figures 1-3, and paragraph 16, “BSC receives the Origination message, which indicates . . . whether MS 140 has data ready to send. If MS 140 has data ready to send, then a traffic channel will be required . . . to establish this channel”).

Sayeedi does not specifically disclose that recognizing of the dormant handoff is for multiple packet data service instances and sending of the indication is for the multiple packet data service instances, in the format claimed.

However, a mobile station having multiple packet data service instances and handing off the multiple packet data service instances is conventional in CDMA2000 communications, as disclosed by Wang.

Wang discloses a Mobile station handing off multiple packet data service instances (Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25).

It would have been obvious to a person of skill in the art at the time of invention to modify the invention of Sayeedi in the format claimed by incorporating the teachings of Wang, for the purpose of providing an efficient communication system.

The combination above does not specifically disclose assigning a traffic channel to the mobile station so that the mobile station can send additional dormant handoff requests (sending control signals over a traffic channel), as claimed.

Lancelot discloses recognizing that a mobile station requires a traffic channel over which to send control signals, and sending control channels over a traffic channel (col. 6, lines 36-54, “the secondary station 110 requests an assignment of a traffic channel, and then transmits a registration message over the assigned traffic channel of the plurality of traffic channels”, note that the request made by secondary station 110 prompts the recognition that a need for traffic channels is indicated, and subsequently a traffic channel is assigned).

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the method of Sayeedi by incorporating the teachings of Lancelot, and consequently providing the method of Sayeedi to transmit handoff request signals over the traffic channel, for the purpose of reducing overhead and preserving the control channel and consequently providing efficient resource allocation.

Referring to claim 2, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose recognizing that the mobile station has additional packet data service instances requiring dormant handoff comprises receiving a multiple service instance indicator in a message returned by a Packet Control Function (PCF) in response to the BS initiating dormant handoff of the mobile station (Sayeedi, paragraphs 2-9, figures 1-3, and paragraph 16, note that any indication or request for packet data service instances requiring dormant handoff inherently is communicated via the PCF, Wang, Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25, and Fig. 1-5).

It would have been obvious to a person of skill in the art at the time of invention to modify the above combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 5, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose selectively assigning a traffic channel to the mobile station comprises selectively assigning or not assigning (inherent) a traffic channel to the mobile station based on resource availability at the BS (see the rejection of claim 1).

Referring to claim 8, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose receiving a first dormant handoff request from the mobile station for a first packet data service instance of the mobile station comprises receiving an Origination message from the mobile station over a common access channel of the BS (Sayeedi, paragraphs 2-9, figures 1-3, and paragraph 16, and see the rejection claim 1).

Referring to claim 11, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose initiating dormant handoff of each additional packet data service instance responsive to receiving each additional dormant handoff request (see the rejection of claims 1 and 2).

Referring to claim 13, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1.

The combinations of Sayeedi/Wang/Lancelot do not specifically disclose retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station.

It would have been obvious design choice to modify Saheed/Lancelot's invention by retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station, since applicant has not disclosed by retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station solves any stated problems or is for any particular purpose and it appears the dormant handoff would perform equally well without any knowledge of prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station.

Referring to claim 16, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 13.

The combinations of Sayeedi/Wang/Lancelot do not specifically disclose retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station comprises retaining service instance information received from a source BS during the prior hard handoff of the mobile station.

It would have been obvious design choice to modify Saheed/Lancelot's invention by retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station comprises retaining service instance information received from a source BS during the prior hard handoff of the mobile station, since applicant has not disclosed by retaining information obtained during a prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station solves any stated problems or is for any particular purpose and it appears the dormant handoff would perform equally well without any knowledge of prior hard handoff of the mobile station regarding a number of packet data service instances associated with the mobile station.

Referring to claim 18, the combination of Sayeedi/Wang discloses the method of claim 17.

The combination does not specifically disclose the BS assigns a traffic channel to the mobile station as claimed by the applicant.

Lancelot discloses recognizing that a mobile station requires a traffic channel over which to send control signals, and sending control channels over a traffic channel (col. 6, lines 36-54,

“the secondary station 110 requests an assignment of a traffic channel, and then transmits a registration message over the assigned traffic channel of the plurality of traffic channels”, note that the request made by secondary station 110 prompts the recognition that a need for traffic channels is indicated, and subsequently a traffic channel is assigned).

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the method of Sayeedi by incorporating the teachings of Lancelot, and consequently providing the method of Sayeedi to assign a traffic channel to the mobile station responsive to receiving the indication from the PCF, and further comprising suppressing a subscriber accounting message that is normally sent by the PCF to a Packet Data Serving Node (PDSN) as part of assigning traffic channels to mobile stations, for the purpose of reducing overhead and preserving the control channel and consequently providing efficient resource allocation.

Referring to claim 19, the combinations of Sayeedi/Wang/Lancelot disclose the method claim 18, and further disclose sending a subscriber accounting message responsive to detecting data transfer to or from the mobile station for any packet data service instance (paragraphs 2-9 and figures 2-3, Wang, Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25, and Fig. 1-5).

Referring to claim 20, the combinations of Sayeedi/Wang/Lancelot disclose the method claim 17, and further disclose recognizing that a mobile station undergoing dormant handoff has multiple packet data service instances comprises recognizing an indication of multiple packet data service instances in a registration reply message returned by a Packet Data Serving Node (PDSN) as part of re-registering a first one of the multiple packet data service instances (paragraphs 2-9 and figures 2-3).

Referring to claim 21, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 20, and further disclose sending an indication of the multiple packet data service instances to a Base Station (BS) supporting the dormant handoff of the mobile station comprises passing the indication of the multiple packet data service instances received from the PDSN along to the BS unless the PCF has already set up an A8 connection for the mobile station (figures 2-3, and paragraphs 2-9 and 16, and 13, Wang, Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25, and Fig. 1-5).

Referring to claim 22, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 17, and further disclose sending an indication of the multiple packet data service instances to a Base Station (BS) supporting the dormant handoff of the mobile station comprises sending a multiple service instance count to the BS (paragraphs 13-19, and 23-25, Wang, Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25, and Fig. 1-5).

Referring to claim 23, claim 23 defines a method of managing dormant handoffs reciting features analogous to the features of managing dormant handoff method of claim 13. Thus the combinations of Sayeedi/Wang/Lancelot disclose all elements of claim 23 (please see the rejection of claim 13 above).

5. Claims 3-4, 6, 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayeedi (U.S. Pub. No. 2003/0063584 A1) in view of Wang et al (US 6,909,899 B2) and further in view of Lancelot et al (US Patent No. 6026086) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 3, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose selectively assigning a traffic channel to the mobile station comprises assigning the traffic channel (Sayeedi, paragraphs 2-9, figures 1-3, and paragraph 16, and see the rejection of claim 1).

, and further

The combination does not specifically disclose comparing a total number of instances to a threshold.

The examiner takes official notice of the fact that assigning a condition based on a threshold value is well known in the art.

Thus, it would have been obvious to one of the skills in the art to modify the above combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 4, the combinations of Sayeedi/Wang/Lancelot disclose the method of claim 1, and further disclose selectively assigning a traffic channel to the mobile station comprises assigning the traffic channel if the mobile station has two or more packet data service instances (Sayeedi, paragraphs 2-9, figures 1-3, and paragraph 16, Wang, Par. 3, lines 28-29 and lines 37-43, and Par. 11, lines 21-25, and Fig. 1-5, and also see the rejection of claim 1 and 3. Note that a two or three value of packet data service is referred to as a threshold value).

Referring to claim 6, claim 6 is rejected for the same reasons used in the rejection claims 4 and 4.

Referring to claim 9, claim 9 is rejected for the same reasons used in the rejection of claims 3 and 4.

Referring to claim 10, claim 10 is rejected for the same reasons used in the rejection of claims 3 and 4.

Referring to claim 12, claim 12 is rejected for the same reasons used in the rejection of claim 9.

6. Claims 25-28 are rejected for the same reasons used in the rejection of claims 17 and 20-22.

7. Claims 29 and 30 are rejected for the same reasons used in the rejection of claim 1.

8. Referring to claims 31-40 and 43, claims 31-40 and 43 define a base station controller for use in a wireless communication network reciting features analogous to the features of the dormant handoff method of claims 4-13 and 16 respectively. Thus, the combinations of Sayeedi/Wang/Lancelot disclose all elements of claims 31-40 and 43 (please the rejection of claims 4-13 and 16 above).

Allowable Subject Matter

9. Claims 7, 14, 15, 24, 41 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1-43 have been considered but are they are moot in view of new grounds of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617